

BOGACHENKO, V.Ye., inzh.

Compensating the reactive loads in harbor networks. Prom.energ.  
15 no.3:8-11 Mr '60. (MIRA 13:6)  
(Electric networks)

KIRPICHNIKOV, Leonid Aleksandrovich; KHARIF, Moisey Izraylevich;  
SVIRSKIY, V.P., inzh., retsenzent; KORESTYNISKIY, N.D., inzh.,  
retsenzent; KORESTYNISKIY, N.D., inzh., retsenzent; YAROSHENKO,  
V.I., inzh., inzh., retsenzent; BOGACHENKO, V.Ye., inzh.,  
nauchnyy red.; LAPINA, Z.D., red. ~~izd-va~~; SARAYEV, B.A., tekhn .  
red.

[Automatic control of transshipment machinery and the electric  
power supply network in sea ports] Avtomatizatsiya peregruzoch-  
nykh mashin i elektricheskikh setei v morskikh portakh. Mo-  
skva, Izd-vo "Morskoi transport," 1961. 147 p. (MIRA 15:3)  
(Cargo handling—Equipment and supplies)  
(Electric power distribution) (Automatic control)

KRASIL'NIKOV, Fedor Fedorovich; BOGACHENKO, V.Ye., red.; ANDREYEVA, L.S., red.izd-va; TIKHONOVA, I.S.A., techn. red.

[Manual on the repair and installation of electrical equipment on ships] Posobie po remontu i montazhu sudovogo elektronoborudovaniia. Moskva, Izd-vo "Morskoi transport, 1963. 198 p.  
(MIRA 16:8)  
(Electricity on ships)

BOGACHENKOV, S., inzhener-pedpokrovnik; RUSANOV, P., inzhener-podpolkovnik;  
KOTEL'NIKOV, S., inzhener-mayor

Renewed workshop. Tekh. i vooruzh. no.5:68-70 My '64.  
(MIRA 17:9)

REUT, Viktor Fedorovich; BOGACHEV, A., redaktor; TROYANOVSKAYA, N., tekhnicheskiy redaktor

[Creative collaboration] Tvorcheskoe sodruzhestvo. Moskva, Gos.  
izd-vo polit. lit-ry, 1956. 38 p. (MLRA 9:9)  
(Science) (Industry)

LEBEDEV, Ivan Vasil'yevich; BOGACHEV, A., redaktor; TROYANOVSKAYA, N.,  
tekhnicheskiy redaktor

[Atomic energy for the good of the people] Atomnuiu energiu - na  
blago naroda, Moskva, Gos. izd-vo polit. lit-ry, 1956. 76 p.  
(Atomic power) (MIRA 9:12)

BOGACHEV, A.D., agronom.

Uses of fertilizers on a collective farm. Zemledelie 7  
no.2:34-37 F '59.  
(MIRA 12:3)

1.Kolkhoz "Kominter," Mogilevskogo rayona, Mogilevskoy oblasti.  
(Mogilev District--Fertilizers and manures)

18(5)

SOV/128-59-10-5/24

AUTHORS: Bogachev, A.F., Burtsev, A.D., Lakedemouskiy, A.V., Lupanov, B.P.,  
Andrianov, Ye.I., and Sagusyy, V.V., Engineers

TITLE: Exothermic Mixtures for the Heating of Risers

PERIODICAL: Liteynoye proizvodstvo, 1959, Nr 10, pp 17-21 (USSR)

ABSTRACT: The authors present a report on research which has been made on exothermic mixtures for the heating of risers. The qualities of already-known exothermic mixtures were investigated at the beginning of the research. The exothermic mixtures were divided into three groups, according to their oxygen balance of thermite and their chemical and granulate consistence. Bushes which are made of thermite mixture with additions, with coke ashes and with coke dross, give different results during combustion. These results are depending on their consistence, as figs. 1a-w show. Table 1 shows different mixtures, their granularity and the percentage of different components. The technology of preparing materials for mixtures is not complicated. Aluminum chips and dross are at the same time exposed to crushing in grinding mills with the last

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Exothermic Mixtures for the Heating of Risers

sifting through sieves of 1.5 mm. The rest repeatedly goes through a grinding mill. The coke dross goes through a sieve of 6 mm. The bushes (Fig.2) are produced in wooden core moulds (Fig.3). Special standards are elaborated for the dimensions of the bushes (Table 4). Exothermic bushes, which are used in combination with diaphragms, are made in the same core moulds as the usual ones. The difference is that they have a center piece in the lower part of the wooden inset which has the shape of the parting diaphragm and dimensions according to table 7. The exothermic mixtures which are used at MosZIL, are recommended for use in foundry production. A.F. Yurasov, M.I. Averbukh, M.I. Kurlovich, P.S. Romanov, N.P. Gritsko, V.I. Zheltov and P.I. Fedorov participated in this study. There are 5-photographs, 3 diagrams and 9 tables.

Card 2/2

BURTSEV, A.D.; SAGUSNYY, V.V.; LUPANOV, B.P.; BOGACHEV, A.F.; SMIRNOV, G.P.;  
ANDRONOVA, Ye.I.; GIZMAYFER, V.K.; PINES, A.V.; SHEVCHUK, R.S.;  
NOSOV, Ye.S.; DOROSHENKO, S.P.; KUGEL', D.B.; ZOLOTNIKOV, N.M.;  
SHPILENKO, A.M.; VASILYUK, A.P.; SVIRIDOV, I.A.

Using exothermic mixtures for heating the heads of steel castings.  
From: energ. 15 no.6:14 Je '60. (MIRA 13:7)  
(Founding)

SHEKHMEYSTER, Sh.Ya., gornyy inzh.; BOGACHEV, A.F., gornyy inzh.

Ways of improving the parameters of boring and blasting operations  
in open-pit mines. Vzryv. delo no.53/10:137-147 '63.

(MIRA 16:8)

1. Gosudarstvennyy institut po proyektirovaniyu gornykh predpriyatiy  
zhelezorudnoy i margantsevoy promyshlennosti i promyshlennosti  
nemetallicheskikh iskopayemykh, Leningrad.  
(Boring) (Blasting)

SHEKHMEYSTER, Sh.Ya., gornyy inzhener; BOGACHEV, A.F., gornyy inzhener

Technology of boring and blasting operations in using continuous equipment in open pits. Gor. zhur. no.3:8-12 Mr '63. (MIRA 16:4)

1. Gosudarstvennyy institut po proyektirovaniyu gornykh predpriyatiy zhelezorudnoy i marginalsevoy promyshlennosti i promyshlennosti ne-metallicheskikh iskopayemykh, Leningrad.

KVASNIKOV, V.S., gornyy inzh.; BOGACHEV, A.F., gornyy inzh.

Accelarate the mechanization of blasting operations in strip mines.  
Gor. zhur. no.6:41-44 Je '64. (MIRA 17:11)

1. Gosudarstvennyy soyuznnyy institut po proyektirovaniyu predpriyatiy  
gornorudnoy promyshlennosti, Leningrad.

BOGACHEV, A.F., inzh.

Use of linear programming for the economic grounds of optimum  
condition for stripping operations. Izv. vys. ucheb. zav., gor.  
zhur. 8 no.2;84-88 '65.  
(MIRA 18:5)

1. Leningradskiy ordena Lenina i ordena Trudovogo Krasnogo  
Znameni gornyy institut imeni G.V.Plehanova.

BOGACHEV, A.I.

Carbonatites of the Vuorijarvi massif. Izv. Kar. i Kol'. fil. AN  
SSSR no.2:85-89 '58. (MIRA 11:9)

1.Otdel petrografii i mineralogii Karel'skogo filiala AN SSSR.  
(Vuorijarvi region--Limestone)

BOGACHEV, A. I.

A.N. Zavaritskii's method for the recalculation of chemical analyses of basic titaniferous ore deposits. Izv.Kar. i Kol'. fil.AN SSSR no.4:16-19 '58. (MIRA 12:5)

1. Otdel petrografii i mineralogii Karel'skogo filiala AN SSSR.  
(Titanium ores)

BOGACHEV, A.I.

Some comments on Bowen's reaction principle. Izv. Kar. i Kol'. fil.  
AN SSSR no.1:67-70 '59. (MIRA 12:9)

1.Otdel petrografii i mineralogii Karel'skogo filiala AN SSSR.  
(Petrology)

BOGACHEV, A.I.; ZAK, S.I.

New data on the geology of the Yeltozero ore-bearing massif in  
northern Karelia. Trudy Kar. fil. AN SSSR no.11:241-268 '59.  
(MIRA 13:2)

(Yeltozero region--Geology)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3

BOGACHEV, A.I.

Differential characteristics of titaniferous basic magmas.  
Trudy Kar. fil. AN SSSR no.11:269-276 '59. (MIRA 13:2)  
(Titanium ores) (Magma)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3"

BOGACHEV, Aleksey Ivanovich; ZAK, Spartak Iosifovich; SAFRONOVA,  
Galina Petrovna; ININA, Klavdiya Aleksandrovna; ROBONEN,  
V.I., kand. geol.-miner. nauk, nauchn. red.; REIKHERT,  
L.A., red.izd-va; GALIGANOVA, L.M., tekhn. red.

[Geology and petrology of the Yelet'ozerskiy gabbroid massif in Karelia; geology, petrography, metallogenesis] Geologiia i petrologija elet'ozerskogo massiva gabbroidnykh porod Karelii; geologiia, petrografija, petrologija, metallogenija.  
[By] Bogachev, A.I. i dr. Moskva, Izd-vo AN SSSR, 1963. 159 p.  
(MIRA 16:10)

(Karelia--Gabbro)

BOGACHEV, A.I.; GORELOV, V.A.; KOCHNEV; REVUKHIN, V.I.

Basic characteristics of the structure and sulfide mineralization of the Fechenga-Lotta interfluvia (northwestern part of the Kola Peninsula). Trudy Lab. geol. dokem. no.29:306-311 \*64  
(MIRA 17:8)

EOGACHEV, A.I.

23548. PRIMENIYE CHASTICHNOPAKETNCGO GRAFIKA NA ODNOPUTNYKh  
UChASTKAKh. Sbornik NAUCH. TRUDOV (TASHK. IN-T INZhENEROV  
Zh.-D. TRANSPORTA), VYP. 2, 1949, C. 3-16

SO: LETOPIS NO. 31, 1949.

BOGACHEV, Aleksey Ivanovich, kandidat tekhnicheskikh nauk; AL'TERMAN, S.L.,  
redaktor; KHITROV, P.A., tekhnicheskiy redaktor

[The organization of train movements during track repairs] Orga-  
nisatsiia dvizheniya poezdov v usloviakh vypolneniya putevykh  
rabot. Moskva, Gos.transp. zhel-dor. izd-vo, 1955. 115 p.  
(Railroads--Traffic) (MLRA 9:2)

BOGACHEV, A.I., kandidat tekhnicheskikh nauk.

On the effectiveness of increasing traffic capacity on two-track sections during periods of track work. Trudy KIIZHT no.20:71-84 '56. (Railroads--Management) (MLRA 9:10)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3

~~BOGACHEV, A.I.~~, kand. tekhn. nauk; KOVALEVSKIY, M.F., inzh.; MISHINA, A.S.,  
inzh. (g. Tuapse).

Organizing uninterrupted crossing at stations built according to  
a parallel system. Zhel. dor. transp. 40 no.2:71-73 F '58.  
(Railroads--Traffic) (MIRA 11:3)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3"

BOGACHEV, A.I., kand.tekhn.nauk; PISANKO, A.S., kand.tekhn.nauk

Effective utilization of the traffic capacity of two-track  
sections during construction and improvement. Zhel.dor.transp.  
42 no.3:42-45 Mr '60. (MIRA 13:6)  
(Railroads--Traffic)

BOGACHEV, A.I., kand.tekhn.nauk

Determining the optimum "interval" time in train sheets during the  
electrification of double-track sections and maintenance work.  
Vest. TSNII MPS 20 no.1:46-50 '61. (MIRA 14:1)

1. Rostovskiy institut inzhenerov zheleznodorozhnogo transporta.  
(Railroads--Traffic)

ALEKSANDROV, Aleksandr Vasil'yevich; BOGACHEV, A.I., kand.tekhn.  
nauk, retsenant; LOSKUTOV, V.V., kand.tokhn.nauk, retsen-  
zent; EYKHORN, L.G., nauchnyy red.; OSVENSKAYA, A.A., red.  
ERASTOVA, N.V., tekhn. red.

[Ship systems] Sudovye sistemy. Leningrad, Sudpromgiz, 1962.  
428 p. (MIRA 15:8)  
(Marine engineering)

BOGACHEV, A.I., kand.tekhn.nauk

Determining the economically favorable duration of "intervals"  
in the non-group train sheets in case of ~~track~~ repair single-track  
sections. Trudy RIIZHT no.30:35-56 '61. (MIRA 15:12)  
(Railroads--Maintenance and repair)

BOGACHEV, A.I., kand.tekhn.nauk; PISANKO, A.S., kand.tekhn.nauk

Increasing the capacity of double-track sections and stations  
during the repair and reconstruction of tracks. Trud RIIIZHT  
no.30:144-172 '61. (MIRA 15:12)  
(Railroads--Maintenance and repair)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3

BOGACHEV, A.I., kand.tekhn.nauk

Determining the adequate duration of "intervals" provided for  
track work in double-track sections. Trudy RIIZHT no.30:57-92  
'61. (MIRA 15:12)  
(Railroads—Maintenance and repair)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3"

BOGACHEV, A.I., kand.tekhn.nauk

Organization of train traffic on the open track of a run during repairs.  
Vest.TSNII MPS 22 no.1:53-56 '63. (MIRA 16:4)  
(Railroads---Traffic)

BOGACHEV, A.I.; KOCHNEV-PERVUKHOV, V.I.

Some petrochemical criteria of nickel-bearing ultrabasite intrusions as revealed by a study made in the Allarechensk region. Sov.geol. 8 no.11:115-124 N '65.

(MIRA 19:1)

1. Institut geologii, Petrozavodsk.

BOGACHEV, A. M., VERKHOVSKIY, B. I. and MAKAROV, A. N.

"Measuring Thickness and Density With the Aid of Radioactive Isotopes".

Physics Institute imeni Lebedev, Academy of Sciences USSR

Report appearing in 1st Volume of "Session of The Academy of Sciences USSR on the Peaceful Use of Atomic Energy, 1-5 July 1955", Publishing House of Academy of Sciences USSR, 1955.

SO: Sum 728, 28 Nov 1955.

BOGACHEV, A.M.; VYERKHOVSKIY, B.I. ; MAKAROV, A.N.

Theory of radioactive methods used for measuring thickness. Zav.  
lab. 21 no. 7:808-812 '55. (MIRA 8:10)  
(Measuring instruments) (Radioisotopes--Industrial applications)

Bogachev, A.M.

AR26 - The tool and Apparatus for Measuring the Thickness  
of Metal Being Rolled. With the Aid of Radiosensitive Film.  
A. N. Bogachev, B. I. Verkhov, and A. N. Vlasov.  
Number of invention No. 3568. 15 p. From Zvezdnye Gory  
Aug. 21, 1939. 813-820. Hermitage  
Academy, Leningrad  
Original abstracted from original. See item 4488 v. 4, N  
1939.

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БОГАЧЕВ, А.М.

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PAGES 1 TO 222 EXCLUSIVE

*Výročním posláním prezidenta republiky k členům parlamentu, k výkonnému orgánu, k generálnímu prokurátorovi, k vrchnímu soudci a k vrchnímu státnímu zástupci i lidstvu v Československu*

**Trudy... "Mashinostroyeniye i priborostroyeniye (Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Scientific and Instrumental Manufacturing). Moscow, Izd-vo Akad. Nauk SSSR, 1958. 358 p.**

REGULATIONS AFFECTING THE USE OF AIRPORTS

stony energii, and Academias niale skola.

**ALTER** Board of Set: V.V. Blyushkin, Aleskevich (Resp. Ed.), I.I. Shumilovsky (Deputy Resp. Ed.), Yu. S. Zaslavsky (Deputy Resp.

**ZG. of Publishing House:** P.M. Belyanin; **Tech. Ed.:** T.P. Poleneva.  
**PURPOSE:** This book is intended for specialists in the field of re-

CHAINS AND INSTRUMENT MANUFACTURE WHO USE RADIOACTIVE ISOTOPES IN THE STUDY OF MATERIALS AND PROCESSES.

and diffusion, diffusion on paper, over a very wide field, and the utilisation of tracer methods in industrial research and control techniques. The aim of this volume is the use of radioisotopes in the machine and instrument manufacture, industry and agriculture.

Individual papers discuss the applications of radioscopes to such areas as the study of metals and alloys, problems of friction and lubrication, metal cutting, engine performance, and defects in metals.

Several papers are devoted to the use of radioisotopes in the automation of industrial processes, recording and measuring devices, quality control, flowmeters, level gauges, safety devices, radio-

tion counters, etc. These papers represent contributions of various Soviet institutes and laboratories. They were published as transactions of the All-Union Conference on the Use of Radiocarbon.

**Bankin, L.M.**, *A.M. Borodchay, I.A. Tsvetkov*. *On the role of most of the papers in the field of scientific literature in the national economy and science, April 4-12, 1957. No personalities are mentioned.*

A. A. Zhdanov, N. N. Novobrusova, and L. A. Abibina-Letern (Tsentrosvyaznauka),  
A. A. Bakayev, N. N. Kostylev, and V. V. Slobodchikov (Vsesoyuznyi Nauchno-Prakticheskiy  
Institut po Avtomaticheskym Sistemam i Upravleniyu), Institut po Obozreniyu i Analizu  
Sistem i Tekhnologii, and the Institute of Mathematics and Cryptology in Lublin, Poland.

**USSR:** Institute of Metal Physics, Academy of Sciences; Institute of Ferrous Metallurgy, Academy of Sciences; Central Automobile and Ordnance Institute, Moscow.

Lurgical Plant "Zaporozhstal", Izmaili Ordzhonikidze). Use of Acid-  
Catalysts for the Measurement of the Thickness of Rolled Steel and  
Cavities

Novosheyeva, N.Z. (Dnepropetrovskiy zavod "Zaporozhstal") -  
Dnepropetrovsk (Zaporozhstal) plant

Plant  
Takar, I.M., and V.A. Yannikovskii (Institute für die  
Technologie der Lebensmittelindustrie, Akademie  
der Wissenschaften der UdSSR — Institute of  
Food Technology, Academy of Sciences of the  
USSR) 1960

Lazarev, V. V. *et al.* Consideration of the Control-Signal Statistics in Recording Radioactive Radiation With Relay-type Instruments

**REVIEW**  
Metallurgy of Ferrous Alloys. By V. V. Kedriner, Yu. S. Pleshkin, L. M. Reznichenko, and T. I. Shul'ga [Institute metallovedeniya i priborostroyeniya]. Institute of Metallurgy and the Physics of Metalloalloys. Translated from Russian by A. G. Tsvetkov. Consultants: R. A. Lynch and J. J. Gilman. Academic, New York, 1962.

Indicators  
of Achievement. To Ya. Konstantinov. In:  
Problems in Designing General-Math Level  
247

**JOHN T. REED** — Design Engineer, Office of Scientific Research and Development, Washington, D. C.  
**JOHN T. REED** — Design Engineer, Office of Scientific Research and Development, Washington, D. C.  
**JOHN T. REED** — Design Engineer, Office of Scientific Research and Development, Washington, D. C.

Khren, I. E., and V. A. Yanushkovsky (Institut fiziki AN Latvij-

Fig. 10A. Level Indicator for Free-flowing Materials

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APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3"

AUTHOR: Bogachev, A. M. SOV/32-24-8-36/43

TITLE: A Non-Contact Instrument for Measuring the Thickness of Rolled Plate by the Absorption of Radioactive Radiation (Priber dlya beskontaktnogo izmereniya tolshchiny listovogo prokata po pogleshcheniyu radioaktivnogo izlucheniya)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 8, pp. 1029-1032 (USSR)

ABSTRACT: A description is given of a testing instrument with scintillation counter which is used to automatically control rolled steel laminations. In comparison with the apparatus of type ITU -495 this instrument possesses the advantage of giving greater accuracy by checking observed measurements with an automatic correction measurement. This instrument is also simpler in design, lighter and smaller, and more reliable in measuring. The scintillation counter consists of a photoelectric multiplier of the FEU-19 type and a stilbene crystal. To stabilize the parameters of the photomultiplier and the pre-amplifier an automatic amplification device was used, and the working method for this device is given. With this apparatus it

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SOV/32-24-8-36/43

A Non-Contact Instrument for Measuring the Thickness of Rolled Plate by the Absorption of Radioactive Radiation

is possible to measure automatically in absolute values the thickness of metals in the range of 0,002 to 0,1 mm using  $\text{Sr}^{90}$  and up to 1,0 mm using  $\text{Cl}^{144}$ . The automatic proof measurement practically removes the influence of the disintegration of used sources of radiation as well as the contamination from protective foils. The apparatus consists of two separate parts; the measurement unit, and the indicator unit. An exact description of the set-up is given. The first testing device of this kind was mounted on a 12-roll "chair" in the staleprokatniy zavod v g. Leningrade (Steel factory in Leningrad) in October, 1957, and has been further tested. There are 2 figures and 1 reference, which is Soviet.

ASSOCIATION: Tsentral'naya laboratoriya avtomatiki (Central Laboratory for Automation)

Card 2, 2

BOGACHEV, A.M.

Device for a contactless measurement of the thickness of rolled steel.  
Zav.lab. 27 no.10:1308-1310 '61. (MIRA 14:10)

1. Tsentral'naya laboratoriya avtomatiki.  
(Thickness measurement)

BOGACHEV, Aleksandr Mikhaylovich; IVYAMBAKH, Romul'd Vital'yevich;  
GRUZIN, V.I., red.; LARIONOV, G.Ye., tekhn. red.

[Equipment for the automatic control of the dimensions of rolled products] Pribory avtomaticheskogo kontrolia razmerov prokata. Moskva, Gosenergoizdat, 1962. 111 p. (Biblioteka po avtomatike, no.57) (MIRA 15:9)  
(Rolling(Metalwork)) (Automatic control)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3

BOGACHEV, A.S.

The large-beaked raven *Corvus levaillantii mandshuricus* But.  
Biol. MOIP. Otd. biol. 66 no.1:132-133 Ja-F '61. (MIRA 14:3)  
(MAYKHE VALLEY—RAVENS) (BIRDS---BEHAVIOR)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3"

ANDREYEV, L.L.; VAKHMAN, V.I.; CEPURIN, P.I.; MIROSHNICHENKO, V.F.;  
BOGACHEV, A.S.; VOL'VACH, Ye.Ye., agronom-entomolog; CHEBOTAREV,  
M.Ya., agronom-entomolog (Georgiyevskiy rayon); ZGADOV, G.K.,  
agronom po zashchite rasteniy

Killing shield bugs in combines. Zashch.rast.ot verd. i bol.  
7 no.6:30-31 Je '62. (MIRA 15:12)

1. Zaveduyushchiy Severo-Kavkazskim opornym punktom Vsesoyuznogo  
instituta zashchity rasteniy (for Andreyev). 2. Zamestitel' direk-  
tora, glavnny agronom sovkhoza "Kurskoy" (for Vakhman). 3. Zamestitel'  
direktora, glavnny agronom oporno-pokazatel'nogo sovkhoza "Obil'-  
nenskiy" (for Chepurin). 4. Glavnny inzh. sovkhoza "Kurskiy" (for  
Bogachev). 6. Severo-Kavkazskiy oporny punkt Vsesoyuznogo instituta  
zashchity rasteniy (for Vol'vach). 7. Sovkhoz "Starodubskiy"  
(for Zgadov).

(Stavropol Territory--Wheat--Diseases and pests)  
(Stavropol Territory--Eurygasters)

BOGACHEV, A. V.

The DMZ dividing machine. Stan. 1 instr. 31 no. 9:40 S '60.  
(MIRA 13:9)  
(Dividing engine)

BOGACHEV, A. V.

The 52TM-2 gear-shaping machine for cutting bevel gears. Biul.  
tekhn.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekhn. inform.  
no. 12:42-43 '62. (MIRA 16:1)

(Gear-cutting machines)

BOGACHEV, A.V.



Def. at  
Tbilisi State U.

Dissertation sur la nature de

BOGACHEV, A. V.

Bogachev, A. V. "Fauna of the Binagadinsk Kirovoy stratum," Trudy Yestestv.-ist. muzeya (Akad. nauk Azerbaydzh. SSR), Issues 1-2, 1948, p. 137-60 - Resuem in Azerbaydzhan language

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No.3, 1949)

BOGAVCHEV, A. V.

Bogavchev, A. V. - "New species of Tenebrionidae in Azerbaydzhani and other regions of the Palearctic," Doklady (Akad. nauk azerbeydzh. SSR), 1949, No. 1. p. 38-41 ---- Summary in Azerbaydzhani

So: U- 3566, March 15, 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

BOGACHEV, A. V.

Bogachev, A. V. "On two little known poets in the forests  
and gardens of Azerbaijan," Doklady (Akad. nauk Azerbaiydz. SSR),  
1949, No. 4, p. 180-85, (Resume in Azerbaijani.)

SO: U-5241, 17 December 1953, (Letopis 'Zhurnal 'nykh Statey, No. 26, 1949)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3

BOGACHEV, A. V.

Bogachev, A. V. and Samedov, N. G. - "Data on the study of the parasitic fauna of the Nakhichevan ASSR," (Tabanidae Nakh. ASSR), Isvestiya Akad. nauk Azerbaydzh. SSR, 1949, No 5, p. 66-75, (Resume in Azerbaijani)

SG: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3"

BULAGIN, A.V.

27037

- Novye palearkticheskie vidy epitragini pinelliini (tenebrionidae).  
Doklady (Akad. Nauk Azerbaydzha SSR). 1949, No. 7, S. 277-80.-  
Rezume na azerbaydzhi. Yaz.

SO:IETOPIS' NO. 34

BOGACHEV, A.V.

New species of leaf beetles of the genus *Iuperus* Goffr. (Chrysomelidae, Galerucinae). Dokl. AN Arm. SSR 9 no. 3:131-133 '48.  
(MIRA 9:10)

1. Zoologicheskiy Institut Akademii nauk Azerbaydzhanской SSR, Baku.  
Predstavлено V.O. Gulkanyanom.  
(Leaf beetles)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3

BOGACHEV, A.V.

New darkling beetles (Tenebrionidae) from the U.S.S.R. and  
adjacent countries. Ent. oboz. 32:284-286 '52.  
(MLRA 7:1)  
(Beetles)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3"

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3

BOGACHEV, A. V.

New forms of the genus Pimelia F. (Coleoptera, Tenebrionidae).  
Ent. oboz. 33:302-306 '53.  
(MLRA 7:5)  
(Darkling beetles)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3"

BOGACHEV, A.V.; KRYZHANOVSKIY, O.L.

New species of darkling beetle (Coleoptera, Tenebrionidae) from  
western Turkmenistan. Ent. oboz. 34:240-241 '55. (MLRA 9:5)

1. Zoologicheskiy institut Akademii nauk SSSR, Leningrad.  
(Turkmenistan--Darkling beetles)

BOGACHEV, A.V.

New darkling beetle species of the genera Zophosis Latr., Erodius F.,  
and Harophanta Sem. [with summary in English]. Zool. zhur. 36 no.4:  
529-532 Ap '57. (MIRA 10:6)

I. Institut zoologii Akademii nauk USSR.  
(Darkling beetles)

BOGACHEV, A.V.; KURNAKOV, V.N.

A new species of the genus Pterostichus Bon (Coleoptera, Carabidae)  
from Ossetia [with summary in French]. Ent. oboz. 37 no.1:174-175  
'58. (MIRA 11:3)

(Ossetia--Ground beetles)

BOGACHEV, A.V.

New species of darkling beetles (Tenebrionidae) from Tajikistan.  
Trudy AN Tadzh.SSR 115:63-67 '59. (MIRA 15:5)

1. Institut zoologii i parazitologii AN Tadzhikskoy SSR.  
(Tajikistan---Darkling beetles)

BOGACHEV, A.V.

New genus of darkling beetle from Tajikstan, Allotadzhikistania  
gen.nov. (Tenebrionidae, Pimeliini). Dokl. AN Tadzh. SSR 3 no.1:  
43-46 '60. (MIRA 13:12)

1. Institut zoologii i parazitologii AN Tadzhikskoy SSR. Predstavleno  
chlenom-korrespondentom AN Tadzhikskoy SSR M.N.Narzikulovym.  
(Tajikistan--Darkling beetles)

BOGACHEV, A.V.; KRYZHANOVSKIY, O.L.

New or little-known darkling beetles (Coleoptera, Tenebrionidae)  
from western Turkmenistan. Trudy Zool. inst. 27:264-275 '60.  
(MIRA 13:9)

1. Institut zoologii i parazitologii Akademii nauk Tadzhikskoy  
SSR, Stalinabad i Zoologicheskiy institut Akademii nauk SSSR,  
Leningrad.  
(Turkmenistan--Darkling beetles)

BOGACHEV, A.V.

A new species of the genus Diesia Fisch.-W ( Coleoptera, Tenebrio-  
nidae). Ent. oboz. 40 no.2:369-370 '61. (MIRA 14:6)  
(Darkling beetles)

BOGACHEV, A.V.

Unusual new genus of darkling beetles (gen. Coleoptera, Tenebrionidae) found in Tajikistan. Dokl. AN Tadzh. SSR 3 no.3:35-37 '60.  
(MIRA 16:2)

1. Institut zoologii i parazitologii AN Tadzhikskoy SSR. Predstavлено членом-корреспондентом AN Tadzhikskoy SSR M.N. Narzikulovym.

(Tajikistan—Darkling beetles)

BOGACHEV, A.V.

New species of darkling beetles (Tenebrionidae) from southern Central Asia. Trudy Inst. zool. i paraz. AN Tadzh. SSR 24:94-102 '63.

New species of ichneumon flies of the genus *Gelis* Thung. (Ichneumonidae, Cryptinae). Ibid.:103-109

(MIRA 17:11)

1. Institut zoologii i parazitologii imeni akademika Pavlovskogo AN Tadzhikskoy SSR.

BOGACHEV, A.V.

Two new forms of the genus Pimelia Fabr. (Coleoptera, Tenebrionidae). Uzb. biol. zhur. 8 no.2:42-45 '64. (MIRA 17:9)

1. Institut zoologii i parazitologii imeni akademika Ye.N. Pavlovskogo AN Tadzhikskoy SSR.

BOGACHEV, A.V.

Intraspecific forms of Adesmia dischori Fald. 1837 Coleoptera,  
Tenebrionidae). Ent. oboz. 43 no.1:175-179 '64 (MTRA 17:6)

1. Institut zoologii i parazitologii Akademii nauk Tadzhikskei  
SSR, g. Dushanbe.

BOGACHEV, B.A.

Determining the physical parameters of a gas-bearing reservoir.  
Izv. vys. ucheb. zav.; neft' i gaz 5 no.10:47-51 '62.

(MIRA 17:8)

1. Tomskiy politekhnicheskiy institut imeni Kirova.

BOGACHEV, B.A.

Analyzing the hydrodynamic methods for investigating wells on the  
basis of standard curves. Izv. vys. ucheb. zav.; neft' i gaz 6 no.  
1:49-54 '63. (MIRA 17:10)

1. Tomskiy politekhnicheskiy institut im. S.M. Kirova.

BOGACHEV, B.A.

Simplified method for determining reservoir parameters. Izv.  
vys. ucheb. zav.; neft' i gaz 7 no.3:98,106 '64.  
(MIRA 17:6)  
1. Tomskiy politekhnicheskiy institut.

BOGACHEV, B.A.

Determining the output of a well in case of elastic drive.  
Izv. vys. ucheb. zav.; neft' i gaz 8 no.3:40,46 '65.

(MIRA 18:5)

1. Tomskiy politekhnicheskiy institut.

*BOGACHEV, B.A.*

BOGACHEV, B.A.

Testing the production string for airtightness, Neftianik 2  
no.8:26-27 Ag '57. (MIRA 10:10)

1. Sverdlovskiy gornyy institut.  
(Oil wells--Equipment and supplies)

*of*

Dissolving by Reduction with Sodium Hydroxide. A. V. S. A. Semenovich and V. A. Bogachev. (Zhurnal Metallovedeniya i Termicheskoye Obrabotki Metallov, 1953, No. (3) 37-39). After a thermodynamic discussion, the dissolving process with sodium hydroxide melt is described, and the results of an economic analysis of the process are discussed.

Bogachev, F.A.

137-58-5-10567 D

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 241 (USSR)

AUTHOR: Bogachev, F.A.

TITLE: An Investigation of Irreversible Austenite Transformations at Low Temperatures in Instrument Alloys (Issledovaniye neobratimykh prevrashcheniy austenita pri nizkikh temperaturakh v pribornykh splavakh)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Leningr. in-t aviat. priborostr. (Leningrad Institute of Aviation Instrument Making), place not given, 1957

ASSOCIATION: Leningr. in-t aviat. priborostr. (Leningrad Institute of Aviation Instrument Making), place not given

1. Alloys--Transformations    2. Austenite--Metallurgical effects

Card 1/1

Bogachev, F. A.

PHASE I BOOK EXPLOITATION 1146

Leningrad. Institut aviatsionnogo priborostroyeniya

Trudy, vyp. 22 (Transactions of the Leningrad Institute of Aeronautical Instrumentation, Nr 22) Leningrad, 1957. 77 p. 600 copies printed.

Resp. Ed.: Mes'kin, V.S.; Tech. Ed.: Smirnov, A.V.; Editorial Board of Series: Aksenov, D.D. (Chairman), Blinov, V.I., Borkhvardt, G.K., Bulovskiy, P.I. (Deputy Chairman), Voronovskaya, Ye.V., Zavalishin, D.A., Mes'kin, V.S., Pavlov, V.A., Povalyayev, A.V., Sivers, A.P., Filippov, P.I., Epshteyn, M.O., and Mishin, V.I.

PURPOSE: This booklet is presented as scientific information for metallurgists working in instrument making.

COVERAGE: This booklet is a compilation of four articles. The first paper describes an investigation by thermomagnetic and metallographic methods of the transformations in three thermomagnetic alloys, four alloys with special thermal properties, and two thermobimetals. It is shown that in these alloys, with two exceptions, a martensite transformation takes place at negative temperatures. The author considers the effect of hot and cold plastic deformation of austenite,

Card 1/3

Transactions of the Leningrad Institute (Cont.) 1146

the effect of the partial decarbonization of the outer layer, and the effect of isothermal soaking at room temperature and in the martensite range on the martensite transformation in the alloys indicated. Both qualitative and quantitative effects of martensite transformation on the temperature coefficient of magnetization intensity and on the linear-expansion coefficient are shown. The second paper first tabulates the results of the testing of metastable nitride phases for wear by P.L. Gordiyenko's machine. The authors then discuss corrosion tests on ferrite, nitride martensite, epsilon-phase, and carbon martensite. The third paper mentions Yu.D. Tyapkin's method for determining alpha-phase in the case of continuous cooling of the alloys and then describes the author's own method which may also be used in isothermal soaking and in heating the alloy. This method permits determination of the beginning and course of martensite transformation in alloys consisting of two ferromagnetic phases at temperatures below the Curie point. The fourth paper first discusses generally the role and methods of thermochemistry. It then takes up the problem of investigating the fundamental feasibility and the trend of the reactions in the thermochemical processes used in the heat treatment of steel with the aid of calculation of thermodynamic functions. The author studied 236 such reactions, selecting as the most conveniently calculated function the variation of the free energy of a reaction at constant pressure (called in the USSR the variation of the isobaric potential).

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Transactions of the Leningrad Institute (Cont.) 1146

The author states the principles of his method, gives tables of thermodynamics and other physical constants necessary for use of the method, and presents detailed examples which illustrate the calculation procedures. The paper contains six appendices.

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AVAILABLE: Library of Congress

Card 3/3

IS/aak  
1-28-59

Bogachev, F. A.

137-1957-12-24900

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 278 (USSR)

AUTHOR: Bogachev, F. A.

TITLE: On Low-temperature Transformations in Austenite Steels,  
Employed in the Manufacture of Instruments (O prevrashcheniyakh  
pri nizkikh temperaturakh v austenitnykh stalyakh,  
primenyayushchikhsya v priborostroyenii)

PERIODICAL: Tr. Leningr. in-ta aviats. priborostr., 1957, Nr 22, pp 3-22

ABSTRACT: Methods of thermo-magnetic and metallographic analysis were employed in an investigation intended to determine the effects of hot and cold plastic deformation, partial decarburization at the surface, and of isothermal exposure at room temperature on the martensite transformation (MT) in the following alloys:  
1) Thermomagnetic alloys (0.05 - 0.15 percent C; 30.8 - 37.0 percent Ni; 0.2 - 2.4 percent Mn; 10 - 12 percent Cr); 2) Alloys with special thermal properties (0.05 - 0.30 percent C; 20.0 - 34 percent Ni; 2.3 - 2.8 percent Cr; 5.7 percent Co); 3) Thermobimetals (C up to 0.35 percent; 22.0 - 37.0 percent Ni; 2.0 - 3.0 percent Cr). Compared with the annealed state, hot forging of high-nickel steels with low C content, with or without Mn and Co additions, greatly suppresses the MT; this is mani-

Card 1/3

137-1957-12-24900

On Low-temperature Transformations in Austenite Steels

fested in the lowering of the martensite point and in a decrease in the total MT effect during a subsequent period of cooling to -195° followed by reheating to room temperature. Hot plastic deformation of high-nickel steels rich in C and containing Cr additions renders the austenite virtually completely stable with regard to MT during cooling. Annealing the steel at 1050° under vacuum partially eliminates the stabilizing effects of the hot plastic deformation. Cold deformation of high-nickel steel also increases the stability of the austenite against MT during deep cooling, particularly in the case of steel with increased C content; this effect, however, is not the same for the various steels. Tempering followed by exposure to room temperature improves the stability of austenite in low-carbon steels, and does not affect the MT during the subsequent cooling and heating of high-carbon steels. The stability of austenite exposed to lower temperatures increases proportionately with the lowering of the temperature and the time of exposure. The exposure of steel to temperatures of the martensite range is accompanied by isothermal formation of martensite. In cooling to -195°, regardless of preceding treatment, no MT was observed in steel containing 0.07 percent C, 33.0 percent Ni, and 2.4 percent Mn or in EI473 steel (0.15 percent C).

Card 2/3

137-1957-12-24900

On Low-temperature Transformations in Austenite Steels

33.5 - 37 percent Ni, 10.0 - 12.0 percent Cr). Decarburizing of the surface displaces the origin of MT into the range of room temperatures.

N. K.

1. Austenitic steel-Transformations

Card 3/3

SOV/137-57-11-22600

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 11, p 282 (USSR)

AUTHOR: Bogachev, F. A.

TITLE: On the Reorganization of the Magnetometric Curves Into Martensite Curves in the Presence of Two Ferromagnetic Phases in the Alloy (O perestroyke magnitometricheskikh krivykh v martensitnyye pri nalichii v splate dvukh ferromagnitnykh faz)

PERIODICAL: Tr. Leningr. in-ta aviats. priborostr., 1957, Nr 22, pp 29-32

ABSTRACT: A description of a method for the study of the kinetics of martensite transformation in alloys (consisting of two ferromagnetic phases at a temperature below the Curie point) through the variation in magnetic saturation (MS) in relation to the temperature. With this in view the relationship  $A = f(t)$ , where  $A$  is the instrument reading proportional to the MS of the alloy, and  $t$  is the temperature of the alloy, is established with the aid of the usual magnetometric instruments. The amount of  $\alpha$  phase  $R_\alpha$  can be determined by the formula:  $P_\alpha = [A_{\text{alloy}}(t) - A_\gamma(t)] / [A_\alpha(t) - A_\gamma(t)] \times 100\%$ , where  $A_{\text{alloy}}(t)$ ,  $A_\alpha(t)$ , and  $A_\gamma(t)$  are the instrument readings.

Card 1/2

SOV/137-57-11-22600

On the Reorganization of the Magnetometric Curves ( cont. )

readings obtained in the testing of the specimen of the alloy investigated and of specimens consisting entirely of  $\alpha$  or  $\gamma$  phases, respectively. Therefore, to determine  $P_\alpha$  at any temperature it is necessary first to construct two standard curves  $A_\alpha = f_1(t)$  and  $A_\gamma = f_2(t)$  [ sic! sic! ]. The  $A_\gamma = f_1(t)$  curve was recorded with the aid of an anisometer. The specimen was first subjected to a special heat treatment to increase the stability of the  $\gamma$  phase. To construct the  $A_\alpha = f_2(t)$  curve an experimental curve was used which was obtained in the cooling of a test specimen in which the amount of  $\alpha$  phase remained unchanged and the variations in MS occurred only through temperature changes. The proposed method can be used in the study of the kinetics of the martensite transformation during uninterrupted cooling as well as during isothermal soaking and during heating.

T. M.

Card 2/2

*Bogachev F.A.*

3248-16/61

AUTHOR: Bogachev, F.A.,

TITLE: Quantitative Determination of the Martensite Formation in the Presence of Two Ferromagnetic Phases in the Smelt. (Opredeleniye kolichestva obrazovavshegosya martensita pri nalichii v slyave dvukh ferromagnitnykh faz)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol 23, Nr 8, pp. 921-924 (USSR)

ABSTRACT In twofold nickeliron melts with a nickel content of 26-34%, as well as in threefold melts, e.g. nickelmagnesiumiron, two magnetic phases may occur at the same time. In the process of cooling of the melt (below the Curie point) its magnetic saturation increases by the development and further increase of the ferromagnetic  $\alpha$ -phase and of the  $\gamma$ -phase which is due to the reduction of temperature. The scientist Yu.D.Tyapkin worked out a method which permits to calculate the values of the  $\alpha$ -phase according to existing diagrams or nomographs in the course of the cooling process, as well as in process pauses or on repeated heating. This method is based on the additive principle of the magnetic saturation of the melt with the taking into account of a number of phases and any temperature which is expressed by the formula:  $I_{sc}(t) = I_{sa}(t) \frac{P\alpha}{100} + I_{sy}(t) \frac{P\gamma}{100}$

where  $I_{sc}(t)$  is the magnetic saturation of the melt at  $t^{\circ}\text{C}$ , and  $I_{sa}(t)$  and  $I_{sy}$  - the magnetic saturation of the phases  $\alpha$ , and  $\gamma$  at  $t^{\circ}\text{C}$ , and  $P\alpha, P\gamma$  - the content of the  $\alpha$ - and  $\gamma$  phases in the quanti-

Card 1/2

Quantitative Determination of the Martensite Formation in the 32-8-16/61<sup>..</sup>  
Presence of Two Ferromagnetic Phases in the Smelt.

tative percentage of the melt at  $t^{\circ}\text{C}$  temperature. On the basis of  
8 calculation formulae, 2 tables and 3 illustrations the conclusion  
is drawn here that the proposed method permits to determine the be-  
ginning and the course of the martensite formation in melts with  
two ferromagnetic phases on their successive cooling, as well as  
during isothermal pauses and repeated heating. It is also said that  
in the transformation of the curves  $A=f(t)$  into the curves  $-f_3(t)$   
the modification of the magnetic saturation in the initial phase  
and the resulting phase at the assumed variation of temperature  
is taken into account.

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Card 2/2

BOGACHEV, F.V., inzh.; KOROLEV, Yu.F., inzh.

Engineering efficiency of the designs of cast parts. Vest.-  
mashinostr. 42 no.9:36-40 S '62. (MIRA 15:9)  
(Machinery--Design)

L 24790-65 EWT(m)/EWP(b)/EWP(t) IJP(c) JD/JG  
ACCESSION NR: AP5003462 S/0181/65/007/001/0306/0307  
*14  
13  
B*

AUTHOR: Bogachev, G. A.

TITLE: On the relaxation of rare-earth ions

SOURCE: Fizika tverdogo tela, v. 7, no. 1, 1965, 306-307

TOPIC TAGS: spin phonon interaction, relaxation time, rare earth ion, fluorite, spin lattice relaxation

ABSTRACT: To determine the relaxation of rare-earth ions using a minimum number of parameters, the spin-phonon interaction Hamiltonian is expanded in terms of the coordinates of the normal oscillations, so that the only parameter that need be determined from experimental data is the effective charge of the diamagnetic host ions. By expressing the normal coordinates in terms of the operators of the normal vibrations of the crystal, the author obtains a simplified expression for the relaxation of single-phonon processes, and

Cord 1/2

L 24790-65

ACCESSION NR: AP5003462

applies this formula to  $\text{Yb}^{3+}$  ions in a fluorite lattice, for a magnetic field in the [001] direction. The final expression for the relaxation time is  $T_1^{-1} = 2.4 \times 10^{-11} \text{ TH}^4$  (T -- temperature), and for a magnetic field intensity  $H = 2000 \text{ Oe}$  and a temperature  $T = 4.2\text{K}$  this yields for the spin-lattice relaxation time a value  $7.6 \times 10^{-4} \text{ sec}$ , which agrees well with experiment. Orig. art. has: 1 figure and 6 formulas.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR  
(Physics Institute, AN SSSR)

SUBMITTED: 08Aug64

ENCL: 00

SUB CODE: NP, SS

NR REF Sov: 002

OTHER: 003

Card

2/2

L 2711-66 EWT(m)/EWP(t)/EWP(b) IJP(c), JD/JG

ACCESSION NR: AP5017180

UR/0139/65/000/003/0095/0100

AUTHOR: Bogachev, G. A.

27  
S/30  
B

TITLE: On the spin-lattice relaxation of rare-earth ions

SOURCE: IVUZ. Fizika, no. 3, 1965, 95-100

TOPIC TAGS: ytterbium, fluorite, spin lattice relaxation, rare earth metal

ABSTRACT: The author considers crystals in which the impurity ions are surrounded by a cube consisting of eight diamagnetic particles. The spin-lattice relaxation of the impurity rare-earth ions, due to the single-phonon processes, is investigated in host crystals of the fluorite type. The analysis is restricted to an investigation of spin-lattice relaxation at helium temperatures, when single-phonon processes predominate. The only parameter determined from the experimental data is the effective charge of the diamagnetic ions of the surrounding. An equation is derived for the spin-lattice relaxation time. The results are applied to the relaxation of  $\text{Yb}^{3+}$  ions in fluorite. Some deviations from the theoretical and experimental results are discussed. "The author thanks A. M. Prokhorov and K. K. Svidzinskij for a discussion of the work." Orig. art. has: 2 figures and 8 formulas.

Card 1/2

L 2711-66

ACCESSION NR: AP5017180

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva (Physics Institute)

SUBMITTED: 10Nov63

ENCL: 00

SUB CODE: SS

NR REF Sov: 002

OTHER: 009

KC  
Card 2/2

BOGACHOV, G. N.

USSR/Chemistry - Production Control

Nov 51

"Control of the Operation of a Series of Agitators With a Continuous Current of Reagents Participating in a First-Order Reaction," B. M. Devyatov, G. N. Bogachov, Lab of Inorg Salts, Ural Sci Res Chem Inst

"Zhur Frik Khim" Vol XXIV No 11, pp 1156-1165

Using method of operational calcn and previously derived method for detg portion of reacting substance in a flow of material current passing through series of agitators as function of time,

USSR/Chemistry - Production Control Nov 51  
(Contd)

20474

it was shown theoretically possible to solve concrete problem of choosing parameters of system under consideration of control required for system.

20474

Bogachov, G.N.

137-58-5-9345

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 78 (USSR)

AUTHORS: Bogachov, G.N., Bannykh, N.S., Popil'skiy, M.Ya.

TITLE: How Various Factors Affect the Oxidation of Chromic Oxide During Sintering of a Chromite Charge in Industrial Furnaces (Vliyaniye razlichnykh faktorov na okisleniye okisi khroma pri spekanii khromitovoy shikhty v promyshlennykh pechakh)

PERIODICAL: Tr. Ural'skogo n.-i. khim. in-ta, 1957, Nr 4, pp 3-12

ABSTRACT: By investigating the operation of industrial tubular rotary furnaces employed for calcining of chromite with admixtures of soda and dolomite or lime it was established that, during calcining, the degree of oxidation of  $\text{Cr}_2\text{O}_3$  to sodium chromate varies inversely with the content of  $\text{Cr}_2\text{O}_3$  in the initial charge and the rate of loading of the latter into the furnace; this is apparently due to lumping of a part of the charge, a condition which prevents  $\text{O}_2$  from reaching the  $\text{Cr}_2\text{O}_3$ . Increasing the rate of rotation of the furnace has practically no effect on the degree of oxidation of  $\text{Cr}_2\text{O}_3$ . The amount of soda added to the charge must correspond stoichiometrically to the fraction of Cr that is being oxidized to a chromate. To achieve maximum

Card 1/2

137-58-5-9345

How Various Factors Affect (cont.)

oxidation of Cr at any level of output of 40-mm long furnaces with an internal diameter of 1.6 m and an inclination of 6° and which employ powdered coal as fuel, it was found that the optimal Cr content in the charge amounts to approximately 16.5%.

1. Chronic oxide--Oxidation    2. Furnaces--Operation

Ye. Z.

Card 2/2

*Bogachev G. A.*

## PAGE 1 BOOK EXPLANATION

SER/PKA

Addressed name USSR. Institut nauchnoy informatsii

Khimicheskaya promstvoistvoi' SSSR (The Chemical Industry of the USSR)  
Moscow, Gostorgizdat, 1959. 477 p. Brown slip covered. 4,100 copies  
printed.

Sponsoring Agency USSR. Gosudarstvennyi nauchno-tekhnicheskiy komitet.

Ed.: B. P. Kuznetsov, Tech. Ed.: P. V. Pogodin; Editorial Board: A. P. Vinogradov,  
S. I. Vol'mirskiy, N. M. Danilevskiy, M. I. Lender, V. S. Klimov, T. A.  
Leshchenko (Scientific Secretary), D. S. Medvedev, B. D. Melnik, A. N.  
Pashkovskiy, A. M. Rybnikov (Editor Ed.), and A. V. Topchikov.PURPOSE: This book is intended for the personnel of the chemical industry. It  
will be of interest to the general reader interested in the development and  
structure of the Soviet chemical industry.CONTENTS: This book contains 10 articles on various aspects of the Soviet  
chemical industry. Among the developments in the production of new materials  
are the manufacture of chemical products discussed and 1) the use of new  
materials synthesized from natural gas and petroleum to replace food products  
in the production of synthetic rubber, alcohol, detergents, etc.; 2) the  
production of polyurethane from natural gas and petroleum gases for the synthesis  
of vinyl chloride, acrylonitrile, chloroprene, 1,4-butadiene,  
and other organic substances; 3) the synthesis of solvents, plastic  
additives, pharmaceutical products, etc., and 4) the production of rubber ad-  
sorbents from alkylene-containing aliphatic hydrocarbons. The history of  
plastics production in the Soviet Union is reviewed, and uses, limitations  
and products of plastics well as improved furnaces designed by N. A. Grishanov by  
high-temperature syntheses of propylene and butane in carbon furnaces, or by  
other methods of producing synthetic plastic articles. A special ap-  
partment designed by Ye. M. Morozov and designated "Synthetic  
preparation of viscose solution" is one option to discuss. It is being  
used to replace the complex, conventional equipment with great savings in  
energy, pharmaceutical products, etc., and 4) the production of rubber ad-  
sorbents, carbon black, coke, silicon metal, refractories and  
ceramics, and chemical products (industrial and green). Chemical processes  
and apparatus and automatic devices used in the chemical industry are  
also discussed. Photocopies included in the book show outside  
and interior view of some Soviet chemical industry plants, as well as  
personalities and facilities are identified in the body of the text.  
REFERENCES: 1. M. Dobrovolskiy (deceased), and K. A. Semulin. The Production  
of Mineral Fertilizers and Fixed Nitrogen  
2. M. M. Vinogradov. The Chemical Mining Industry  
3. N. M. Danilevskiy. Mineral Acid Production  
4. N. M. Danilevskiy. The Soda Industry  
5. N. M. Danilevskiy. The Chlorine Industry  
6. N. M. Danilevskiy. The Production of Mineral Salts  
7. V. G. Brusik, and G. V. Chuchalin. Chemical Reagents and  
High-Purity Substances  
8. Professor N. S. V. V. Roshchany, I. P. Butikov, and R. I. Glebov. The Produc-  
tion of Medicaments and Sanitary Cosmetics: A New Branch of Chemical Tech-  
nology

E  
BOGACHOV, G.N.; PAVLOV, V.M.; CHERNYKH, V.I.; KLYUKINA, E.P.

Oxidizing calcination of chromite charges in furnaces with a  
liquidized bed. Khim. prom. no. 9:63-64 S '61. (MIRA 15:1)  
(Sodium chromate)  
(Furnaces)

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A057/A126

S.2420

AUTHOR: Bogachov, G. N.

TITLE: Problems and present state of fluorine compound production

PERIODICAL: Zhurnal vsesoyuznogo khimicheskogo obshchestva imeni D. I. Men-deleyeva, v. 7, no. 1, 1962, 39 - 47

TEXT: A survey of modern methods in the production of fluorine compounds and of corresponding production in the USA is presented. Some methods employed in the USSR are discussed and related flow sheets given. It is mentioned that in the USSR fluorite is used chiefly in metallurgy, sodium fluoride is largely used for wood conservation, while there is no considerable use for sodium bi-fluoride. The industrial utilization of fluorine from phosphates with subsequent production of fluorides is of great importance, since fluorite reserves in the world will soon be exhausted. Hydrogen fluoride can be obtained from fluorite by decomposition with sulfuric acid. Reaction residues can be processed into binding materials such as anhydride cement. 75 - 80% hydrofluoric acid may be manufactured from kiln gases and converted into cryolite, or aluminum fluoride. Two types of kilns are used - with direct and indirect heating. The former need less

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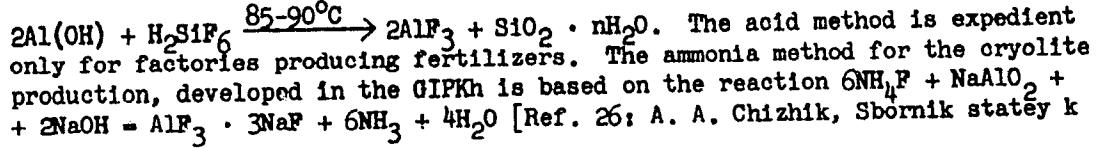
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## Problems and present state of...

repairs and fuel, but only about 40% grade hydrofluoric acid is obtained. Silicon is removed continuously from the hydrofluoric acid with calcinated sodium carbonate in a reactor with stirrer. Cryolite is manufactured in two steps by forming first an aluminum hydroxide solution in hydrofluoric acid and then precipitating cryolite by sodium carbonate, or chloride. The continuous method for preparing cryolite is recommended by the present authors. Cryolite can be manufactured by means of alkaline, acid, or ammonium method and by recovery of by-product fluorine from phosphates. The first method was developed in the NIUIF (Moscow Scientific Research Institute of Fertilizers, Insecticides and Fungicides imeni Ya. V. Semyonov) and is based on the reaction  $6\text{NaF} + \text{NaAlO}_2 + 2\text{CO}_2 = \text{AlF}_3 \cdot 3\text{NaF} + 2\text{Na}_2\text{CO}_3$ . For this method B. A. Kuz'min (Ref. 22: Izv. vuzov Tsvet. met., 3, 86 [1958]) suggested to roast a mixture of low-grade fluorite, tripolite and potassium carbonate, then to leach out the generated potassium fluoride and convert it into sodium fluoride with sodium carbonate. The acid method is developed on the reaction



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dvadtsatileiyu GIPKh (Collection of papers on the 20th anniversary of the GIPKh), GNTI, L., 1939]. A variant of this method was suggested by the Institute of Inorganic Chemistry of the Polish People's Republic [Ref. 20: W. Augustin, Przem. Chem., 39, 2, 91 (1960)]. More simple is the variant developed by the UNIKhIM (Ural Scientific Research Chemical Institute) (Refs. 11, 12, 19). An analogous variant was developed independently in Hungary. A supersaturated aluminum fluoride solution is obtained by heating fluosilicic acid (of a maximum concentration of 10%) to 80 - 95°C. The solution is separated from the precipitated gelatinous silicic acid by vacuum-filtration and the wash water added. Thus results a 8 - 10%  $\text{AlF}_3$  solution with a 1.08 - 1.10 density, which is stirred and heated (adding a primer) to 85 - 90°C and held for 4 hrs. The precipitated aluminum fluoride trihydrate is separated and dried, while the mother liquor is used for absorption of fluorine containing gases. Decomposition of ammonium bifluoride by sulfuric acid is apparently the most convenient method for the production of hydrogen fluoride. From the technical and economical view, the most suitable method of cryolite and aluminum fluoride production from fluosilicic acid is the UNIKhIM method. It is of great importance to solve the problem of the use of silicic acid which is obtained in great amounts if fluorine compounds are processed from wastes of fertilizer factories. There are 3 figures and 6 tables.

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CIA-RDP86-00513R000205730010-3

BOGACHOV, G.N.

Graphical design method for a chain of continuous reactors. Khim.  
prom. no. 4267-270 Ap '62. (MIRA 15:5)  
(Chemical reactors)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000205730010-3"

CA BOGACHOV G.N.

The theory of continuous processes. I. N. Hugashin and B. N. Devyatov, *Zhur. Priklad. Khim.* (J. Applied Chem.) 22, 991-7 (1949).—The kinetics of reactions taking place in a continuous flow process, at the rate of flow  $F$ , in a mixer (or a series of  $n$  mixers) of vol.  $v$ , are treated with the aid of the concept of time of stay of the reagents. If, for a continuous flow, this is defined, following Marshall and Wellet (C.A. 39, 8874<sup>a</sup>), by the function  $y = e^{-\rho t} - e^{-t}$ , where  $y$  = part of the stream staying in the mixer for not less than  $t$ , and by the corresponding power series by  $(1/t)$  for a system of  $n$  mixers and if the fraction  $\alpha$  of substance reacted (relative to its original

amt.) is  $\alpha = 1 - e^{-\int_0^T \rho dt}$ , where  $\rho$  = probability of reaction for a single mix., analysis gives for the total relative amt.  $D$  of substance reacted up to the time  $T$ , for one mixer,  $D = (1/T) \int_0^T \int_0^t y(t) \alpha'(t) dt dt$  (where  $\alpha' = d\alpha/dt$ ), and the analogous corresponding equation for  $n$  mixers. The integral can be evaluated accurately for reactions of the zeroth and the 1st order, for which  $\rho =$

$k/(1 + k)$  and  $\rho = k_1 = \text{const.}$ , resp. These equations permit calcn. of the concns. of the reagents and of the vol. of the app.

N. I. Ionov

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SOV/117-59-5-12/30

AUTHORS: Baturin, Ye.M., Bogachev, I.A., and Semenov, P.V., Engineers

TITLE: Exothermic Heating of the Lost Head on Castings

PERIODICAL: Mashinostroitel', 1959, Nr 5, pp 19-23 (USSR)

ABSTRACT: Information is given on the new method of keeping hot the lost head on castings in the casting process, by means of cores consisting of exothermic mix. The method was developed by the Vsesoyuznyy proyektno-tehnologicheskiy institut (VPTI) tyazhelogo mashinostroyeniya (All-Union Design and Technology Institute of Heavy Machine Building), in collaboration with the Novo-Kramatorskiy and the Elektrostal' Heavy Machine Building Plants. The material of the mix is: (in volume %) 1.45 of powder aluminum, 1.45 of 75-per cent ground ferrosilicon, 1.45 ground forging scale, 57.1 ground charcoal, 28.55 wood saw dust, 10.0 water glass of specific weight 1.45 and heavier, and 4.4 of water. The core-making technology is given. In use, the cores envelop the lost head, preventing dissipation of heat. The mix starts burning through the contact with liquid metal in the mold, and after combustion

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**Exothermic Heating of the Lost Head on Castings**

it forms a hot "jacket" around the lost head. The burning temperature of the mix is 2000°C. To slow down the combustion and lower the temperature, sand, or cement, or clay is added. The characteristic effect of the method is illustrated by 3 photographs of the lost head formed with the use of a mix including charcoal, coke instead of charcoal, and a carburizer. The shrinkage hole is on the top and well-concentrated; the internal shrinkage cavity is frequently absent. The VPTI has set up standards ("Normali") for the cores (Tables 1 and 2). The article includes calculation formulas and practical examples of calculating the lost heads, and the choice of suitable exothermic core. The exothermic mix has reduced by 2 to 3 times the metal waste for lost heads. At the Novo-Kramatorsky Elektrostal' plants, 430 kg per ton of steel castings is saved. The method is successfully used for castings up to 15 ton in weight. There are 2 diagrams, 1 graph, 4 tables, 2 photographs.

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SOV/112-57-5-10522

8 (2)

Translation from: Referativnyy zhurnal. Elektrotehnika, 1957, Nr 5, p 142 (USSR)

AUTHOR: Samoylo, K. A., Talanina, N. V., Meshchankina, A. Ye.,  
Bogachev, I. D.

TITLE: Method for Precision Measurement of Phase Difference  
(Metod tochnogo izmereniya raznosti faz)

PERIODICAL: Tr. Mosk. energ. in-ta, 1956, Nr 21, pp 89-99

ABSTRACT: Methods of precision measurement of phase difference, which are based on the multiplication of frequency of the process in question, are considered. It is pointed out that the accuracy of measuring the phase-shift angle increases  $n$  times, where  $n$  is the frequency multiplication factor. A number of such schemes are considered; a scheme with a two-channel frequency multiplication, a scheme with a switch and an auxiliary frequency multiplication channel, and a scheme with a switch but without the auxiliary multiplication channel. Two latter methods use an electron-beam tube as an

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